

**DETAILED ACTION**

***Response to Amendment***

1. Claim 15 was canceled by the applicant.
2. Claims 1-14 were selected

***Allowable Subject Matter***

1. Claims 2-4 are allowed.
2. The configuration was not found in a prior art search. The following is a listing/  
statement of reasons for the indication of allowable subject matter.

**The search failed to show or suggest the prior use of:**

The configuration/ combination of elements of independent claim 2. A container device for the long-term storage of hazardous material, particularly for the ultimate disposal of nuclear fuel, comprising at least one elongate, cylindrical first containment body (A) having a casing wall (12) and end walls (13A, 13B), the casing wall and the end walls defining a first compartment (14) for accommodating at least one hazardous-material body (F) formed by the hazardous material or containing or supporting the hazardous material, the first compartment (14) comprising support means for supporting the hazardous-material body centrally in the first compartment and spaced from the casing wall and the end walls, an elongate, cylindrical second containment body (B) having a casing wall (18) and end walls (19A, 19B), the casing wall and the end Walls defining a cylindrical second compartment (22), the second compartment comprising support means (21) for

supporting the first containment body (A) centrally in the second containment body and spaced from the casing wall and the end walls of the second containment body, and passages provided in at least one of the end walls of each of the first and second containment bodies (A, B) for the introduction of wet concrete in the first and second compartments (14, 22) for filling the space between, as regards the first containment body (A), the hazardous-material body (F) and the walls defining the first compartment (14), and, as regards the second containment body (B), the space between the first containment body (A) and the walls defining the second compartment (22).

2. Dependent claims 3-4 are allowable due to dependency upon allowable independent claim 2.

### ***Claim Objections***

1. Claims 9-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Regarding claim 5, the phrase "for example"; "e.g", renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
2. Claims 6-7 are indefinite due to dependency upon claim 5.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roy et al. (US 5,545,796) in light of Kiuchi et al. (US 5,140,165).

Regarding applicant's claim 1, Roy discloses: 1. (Original) A container device for the long-term storage of hazardous material, particularly for the ultimate disposal of nuclear fuel, comprising an elongate, cylindrical first containment body (figure 4, 10) having a casing wall (16) and end walls (14,22), the casing wall and the end walls defining a first compartment for accommodating at least one hazardous-material body (26) formed by the hazardous material or containing or supporting the hazardous material, particularly a hazardous-material body comprising a bundle of rod-shaped nuclear fuel elements, the first

Art Unit: 2881

compartment comprising support means (36) for supporting the hazardous- material body centrally in the first compartment and spaced from the casing wall and the end walls (column 10, line 65 to column 11, line 10).

passages provided in at least one of the end walls of the containment body (10) for the introduction of wet concrete (36) in the first compartment for filling the space between the hazardous-material body and the walls defining the first compartment.

However, Roy lacks: passages provided in at least one of the end walls of the containment body for the introduction of wet concrete.

Kiuchi teaches: passages (figure 2, 31) provided in at least one of the end walls of the containment body for the introduction of wet concrete (figure 1, 33)(col. 5, lines 29-46).

Regarding applicant's claim 8 , Roy discloses: 8. (Original) A method for manufacturing a container device for the long-term storage of hazardous material, particularly nuclear fuel, included in an elongate hazardous-material body, in which the hazardous-material body (F) is placed in an elongate, cylindrical first containment body (A) having a casing wall (12) and end walls (13A, 13B) and is fixed in a defined central position in the containment body and spaced from the casing walls and the end walls of the containment body, and the hazardous-material body (F) in the containment body (A) is embedded throughout its length and at its ends in concrete which is introduced through one of the end walls

Art Unit: 2881

and caused to completely fill the space between the hazardous-material body and the inside of the containment body (A)..

However, Roy lacks: concrete which is introduced through one of the end walls and caused to completely fill the space between the hazardous-material body and the inside of the containment body.

Kiuchi teaches: concrete which is introduced through one of the end walls (figure 2, 31) and caused to completely fill the space between the hazardous-material body and the inside of the containment body (figure 1, 33)(col. 5, lines 29-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the elements of a container device for the long-term storage of hazardous material and method of manufacturing thereof , as disclosed by Roy , with concrete which is introduced through one of the end walls and caused to completely fill the space between the hazardous-material body and the inside of the containment body, as taught by Kiuchi , to create a barrier between the radioactive waste or waste and the container body to minimize degradation of either.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 5 rejected under 35 U.S.C. 102(b) as being anticipated by Roy et al. (US 5,545,796).

Roy discloses the following:

Regarding applicant's claim 5. A method (title) for manufacturing a container device for the ultimate disposal of nuclear fuel elements arranged in at least one bundle, e.g. in one or more fuel assemblies (26), wherein the nuclear fuel elements are introduced and fixed in a defined position in an essentially cylindrical container (10), the length of which is substantially larger than the length of the bundle, with a spacing provided between the nuclear fuel elements and the side and end walls (16) of the container, and are embedded throughout their length and at their ends in a casting compound, such as concrete (36), which is caused to fill completely the space between the bundle and the side and end walls of the container and spaces between the individual nuclear fuel elements of the bundle.

### ***Conclusion***

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pertinent prior art is closely related art that individually or in combination could be considered grounds for rejection. See references cited for a listing of the pertinent prior art found and the prior art found.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Smyth whose telephone number is 571-270-

Art Unit: 2881

1746. The examiner can normally be reached on 7:30AM - 5:00PM; Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jack I. Berman/

Primary Examiner, Art Unit 2881

/A. S./

Examiner, Art Unit 2881